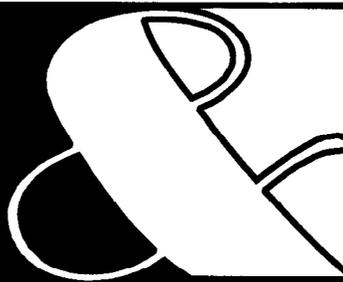


hazardous substances



Public Health

A publication of the Agency for Toxic Substances and Disease Registry

Volume 1, Number 4

September 1991

Health Effects Found at North Carolina Incinerator Prompt Investigation

The report of a joint task force formed by the U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) says that commercial incinerators are responsible for a number of violations that could threaten the health of workers and nearby residents. The task force, which inspected a number of commercial incinerators, was formed after an ATSDR health advisory reported a significant threat to human health at such a facility in Lenoir, North Carolina (see *The CSI Story*, right).

In April 1990, EPA requested that ATSDR evaluate health complaints reported by former employees and their families, and by residents living near the former Caldwell Systems Inc. (CSI) incinerator. The investigation explored allegations of improper work practices, neurological disease in four former CSI workers, and respiratory symptoms and disease among nearby residents. The findings led ATSDR to issue a health advisory to the Administrator of EPA in July 1990, warning of hazardous past work practices at CSI. Recommendations made in the advisory included further study of the extent of contamination and human exposure; restricted access to the facility and adjacent areas; and follow-up activities at other sites that might be expected to have similar problems, specifically, facilities that handled some of the hazardous wastes formerly burned at CSI.

EPA-OSHA investigators inspected 29 incinerators, including all incinerators that dispose of hazardous waste from Superfund sites. (The CSI incinerator was burning Superfund waste at the time of the alleged violations.) No health studies or emissions monitoring were conducted as part of the investigation. The greatest number of violations were related to worker health and safety. The report recommends changes in monitoring and additional training for facility operators. In future inspections, guidelines developed by the task force, which include employee interviews, will be used.

For more information about the Task Force Report on Evaluation of Compliance with On-Site Health and Safety Requirements at Hazardous Waste Incinerators, contact Suzanne Durham, EPA, 345 Courtland Street, NE, Atlanta, Georgia 30365; telephone (404) 347-7791.

The CSI Story

Built in 1976, the Lenoir, North Carolina, incinerator was owned and operated by Caldwell County to burn waste from the furniture industry. Varnish, paint, glues, lacquer, toluene, xylene, and other halogenated and nonhalogenated solvents from the furniture industry in western North Carolina were burned beginning in 1977, making up 90 percent of the waste stream handled by the facility. The incinerator was leased to a private company, Caldwell Systems Inc. (CSI), in mid-1977. Soon after the plant was leased to CSI, the company began to transport waste from other states to Lenoir for incineration.

Waste torpedo fuel (Otto Fuel II) from the Navy made up 10 percent of the total material burned. The fuel consists of propylene glycol dinitrate (76 percent) and two stabilizers, 2-nitrodiphenylamine (1.5 percent) and dibutyl sebacate (22.5 percent). Cyanide gas (10 to 1,000 ppm) was also present in the waste fuel. Workers allege that the torpedo fuel caused their severe headaches, lightheadedness, and nausea. According to former CSI workers, from as early as 1982 (and possibly before), torpedo fuel was burned an average of one or two times per week until incinerator

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operations ceased in May 1988. Because workers were exposed to many chemicals mixed together in varying proportions, it is not possible to blame the torpedo fuel or any single chemical for health effects.

Under the terms of the Resource Conservation and Recovery Act (RCRA), North Carolina licensed the incinerator as an interim status facility to incinerate hazardous chemical wastes. The plant closed in May 1989 after several fires, one of which forced the evacuation of residents living near the plant. CSI continued to operate the plant as a waste blending, bulking, and storage facility until December 1989.

During a health survey of the population living around the site, including former CSI workers and their household contacts, ATSDR and the National Institute for Occupational Safety and Health (NIOSH) talked with local residents in July 1990 to identify prevailing health concerns. Residents reported respiratory, arthritic, and allergic symptoms, as well as eye and airway irritation. Coughing, wheezing, and sputum production were the most frequently encountered symptoms. Residents noted that the smoke and odors from the incinerator were worse at night; many kept windows closed as they slept.

During the initial ATSDR investigation, former CSI workers reported daily dermal and respiratory contact with the chemicals. They also reported that no protective garments or respirators were provided for the first 60 days of employment; thereafter, Tyvek suits, with a 5-minute breakthrough time for toluene, were worn all day. The men reported that they frequently waded in the waste, and some workers cleaned out tank trucks without using respirators. Serious neurological problems consistent with toxic encephalopathy were reported by 14 workers. Four individuals who had extensive contact with solvents and waste torpedo fuel for periods ranging from 17 months to 3 years all exhibited neurologic signs and symptoms. Contaminated work garments were worn home to be laundered. The workers expressed concern about respiratory problems among household members, especially asthma among children.

For more information about the ATSDR-NIOSH health study, contact Michael Straight, MD, 1600 Clifton Road, NE, Mailstop E31, Atlanta, Georgia 30333; telephone (404) 639-0563.

Information Resources

The "Ideal" Information System: Cheap, Easy, Familiar

What would an ideal information system for toxic health effects be like? According to a recent report that assessed the effectiveness of one such system, it would provide

meaningful, comprehensive, relevant, and up-to-date information to all levels of potential users—from the highly trained researcher to the layperson. The system would be well publicized, easily accessible, and available at a nominal cost.

The topic of the report is the National Library of Medicine's (NLM's) TOXicology Data NETwork (TOXNET), the primary health effects information inventory supported by ATSDR. In 1978, the National Library of Medicine (NLM) began compiling a databank of factual information on the health effects of toxic compounds called the Toxicology Data Bank (TDB). With funding from ATSDR and other sponsors, TDB grew and, in 1985, was incorporated into a new data bank called the Hazardous Substance Data Bank (HSDB). HSDB is bundled with other databases, files, and search software, which are collectively known as TOXNET.

ATSDR became involved with NLM's databank as part of the Agency's Literature Inventory and Dissemination (LID) program. The LID program was created by a Superfund mandate to "establish and maintain a comprehensive and publicly accessible inventory of literature, research, and studies on the health effects of toxic substances."

Because of a dramatic increase in the number of people interested in health effects information available on

hazardous substances & Public Health

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TOXNET in recent years, ATSDR contracted in 1989 with the Research Triangle Institute (RTI) to evaluate how well the Agency's LID program activities were meeting the congressional mandate and ATSDR's overall goals. After conducting a series of informal, unstructured discussions with current and potential users, RTI developed recommendations for program improvement.

The report identified three main issues: a preference for other information resources, such as printed sources and personal contacts; difficulty in using TOXNET; and ignorance of the system's availability. In general, the cost of any online information retrieval system is another important factor that clearly influences its use; the majority of potential users discussed limited financial resources as a main concern in the purchase and use of computerized systems.

All users agreed that online information resources are only one of several sources used. One of the most important advantages cited regarding personal contacts is that authorities in the environmental health field can offer data interpretation and advice. Infrequent computer users preferred a contact number with a person rather than a computer system.

The RTI report concludes that the ATSDR LID Program is meeting the inventory part of the congressional mandate and that the current program provides access to the health effects information inventory for a technically trained segment of the public. However, a larger segment of the public, who could benefit, currently lack access.

For a copy of the report or for further information, contact Jim Carpenter, ATSDR, 1600 Clifton Road, NE, Mailstop E33, Atlanta, GA 30333; telephone (404) 639-0736.

From The States...

California

A course on pediatric environmental health developed in California is believed to be the first of its kind. The California Department of Health Services and the California Public Health Foundation, through a cooperative agreement with ATSDR, have developed training programs on pediatric environmental health issues for physicians, nurses, and other health care professionals. From January through June 1991, the Department presented the following modules of its environmental health curriculum, "Kids and the Environment: Toxic Hazards," to the Pediatric Residency Training Program at Children's Hospital in Oakland:



- "The Basics: Epidemiology and Toxicology"
- "A Child Development Approach to Environmental Health"
- "History-Taking and the Home Audit"
- "Pesticides and Children"
- "Air Pollution and its Effects on Children"
- "Doctor, What Is the Answer?"

Four other modules concern lead and heavy metals; working children and occupational exposures; legal issues for pediatricians; and pediatricians' role in environmental health.

The training sessions, conducted at noon conferences, include case studies, discussions, slide presentations, and reference materials. The effectiveness of the modules is assessed through pre- and posttests and behavioral surveys. Each resident receives a complete course syllabus that is the most complete compendium of pediatric environmental health available.

California's program offers another method of environmental health instruction, a videotape series entitled "Clinical Issues in Environmental Health." The 7-tape series was created to help health care providers:

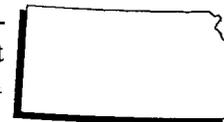
- develop clinical skills in environmental health and epidemiology;
- respond to patient concerns with up-to-date information;
- teach their staffs about current issues of public health concern; and
- earn continuing medical education (CME) credit.

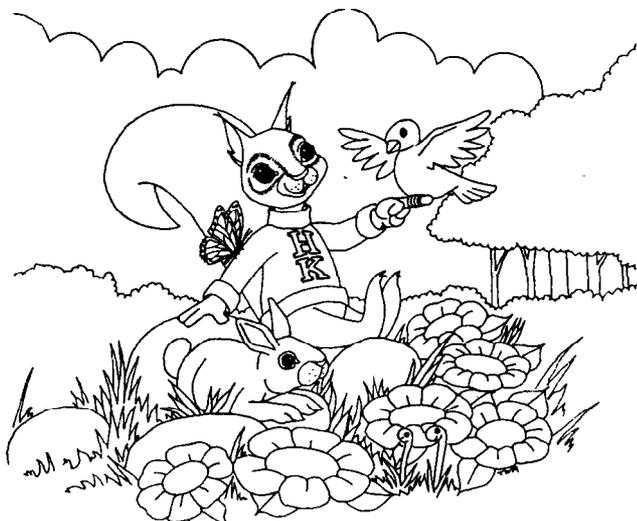
The tapes feature presentations by leading authorities on environmental health. They have been requested by state health departments, other health agencies, private corporations, the Navy, and several ministries in other countries.

For more information, please contact Joy E. Carlson, M.P.H., or Cameron Martel of the Environmental Epidemiology Training Project, 5900 Hollis St., Suite E, Emeryville, CA 94608; telephone (415) 540-3657.

Kansas

A furry friend from the forest is helping teach children in Kansas about the importance of maintaining a healthy environment. The project, "Healthy Kansans, Healthy Kids," features a squirrel named H.K. Through a variety of educational materials, H.K. promotes protection of the environment by encouraging people to participate in environmental healthy activities and to learn more about environmental health issues.





The resources developed for the program include a video-cassette of 30-second public service announcements produced by a local television network; a 1992 environmental awareness coloring calendar; a health and environmental awareness bookmark; and a series of environmental awareness and action fact sheets, such as "Reduce and Recycle Waste at Home," and "Environmental Children's Activity Guide."

The Healthy Kansans, Healthy Kids materials examine a wide range of environmental topics: recycling, energy conservation, wildlife, water, soil, plants, trees, air, food chains, environmental hazards, and household hazardous waste.

According to health promotion administrator Jenny Ransom, children and adults have responded enthusiastically to these educational materials: "Environmental health education benefits young children because it establishes a basic understanding and an appreciation for the preservation of the environment."

The printed materials are available free of charge, though quantities may be limited. For additional information, contact Jenny Ransom, M.A., Health Promotion Administrator, Office of Health and Environmental Education, Kansas Department of Health and Environment, Land-on State Office Building, 10th Floor, 900 SW Jackson, Topeka, KS 66612-1290; telephone (913) 296-1229.

Maryland

The Maryland Department of the Environment produces presentations on a number of environmental health topics to educate physicians and other health care professionals. The state offers grand rounds programs on such topics as



"Environmental Health for Practicing Physicians," "Prevention of Environmental Diseases and Cancer," and "Update on Lead Poisoning Prevention." For county health department staff members, Maryland conducts seminars on lead poisoning prevention. Since January 1991, more than 200 health professionals have been reached.

Maryland has also produced pamphlets and other printed materials for environmental health education through its cooperative agreement with ATSDR. The pamphlets are provided to health care professionals for distribution to their patients and clinics. Some examples of titles on lead poisoning prevention include:

- "Preventing Lead Poisoning: What Every Parent Should Know" (written for parents and caregivers of young children; presents general guidelines for preventing lead poisoning);
- "Keep Your Home Lead Safe" (written for parents and caregivers of young children; offers review of common lead hazards);
- "Be Lead Smart Before Your Baby Is Born" (written for pregnant women; discusses prevention of prenatal exposure to lead).

Other printed materials produced by the state include a 7-part series entitled "Lead Paint Hazard Fact Sheets." The series was created for contract and property owners responsible for conducting abatement projects; for inspectors representing health, environment, housing, or other designated agencies; and for abatement workers. The fact sheets are intended to supplement relevant regulations and to highlight primary areas of concern.

For more information, please contact Boon Lim, M.D., M.P.H., State of Maryland, Department of the Environment, 2500 Broening Highway, Baltimore, MD 21224; telephone (301) 631-3852.

Calendar

September

Sept. 20-25: National Association of Community Health Centers, Inc. 22nd Annual Convention and Community Health Institute, San Francisco, California. Contact: Kathy Kunkler, Meetings Manager, NACHC, 1330 New Hampshire Ave., N.W., Suite 122, Washington, D.C. 20036; telephone (202) 659-8008.

Sept. 23-26: Hydrocarbon Contaminated Soils: Analysis, Fate, Environmental and Public Health Effects, Remediation, and Regulation, Amherst, Massachusetts. Contact: Linda Rosen, Conference Coordinator, University Conference Services CS92-4N, 918 Campus Center,

University of Massachusetts, Amherst, MA 01003; telephone (413) 545-2934.

Announcements

Sept. 23-27: Dioxin '91: 11th International Symposium on Chlorinated Dioxins and Related Compounds, Research Triangle Park, North Carolina. *Contact:* Sharon Johnson Wills, Program Assistant, Office of Continuing Education, University of North Carolina School of Public Health, CB# 8165, Miller Hall, Chapel Hill, NC 27599-8165; telephone (919) 966-1104.

Sept. 25-28: Fourth International Congress on Environmental Lung Disease, Montreal, Quebec, Canada. *Contact:* American College of Chest Physicians, 3300 Dundee Rd., Northbrook, IL 60062; telephone (708) 698-2200.

October

Oct. 6-9: Health Risk Analysis: Assessment, Management, Communication, Des Moines, Iowa. *Contact:* National Environmental Health Association, 720 S. Colorado Blvd., Suite 970, South Tower, Denver, CO 80222; telephone (303) 756-9090.

Oct. 7-8: Preventing Childhood Lead Poisoning, Washington, D.C. *Contact:* Janet A. Phoenix, Alliance To End Childhood Lead Poisoning, 600 Pennsylvania Ave., SE, Suite 100, Washington, DC 20003; telephone (202) 543-1147.

Oct. 15-16: Illinois Environmental Health Association Annual Education Conference, Springfield, Illinois. *Contact:* Diana Johnston, Illinois Environmental Health Association, c/o Illinois Department of Public Health, Division of Environmental Health, 525 West Jefferson St., Springfield, IL 62761; telephone (217) 782-5830.

Oct. 22-24: Making Prevention a Reality, Washington, D.C. *Contact:* Jack Friel, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control, 1600 Clifton Rd., NE, Mailstop K43, Atlanta, GA 30333; telephone (404) 488-5390.

Oct. 22-25: Conference on Lead and Health, Palm Springs, California. *Contact:* J.T. Miller, Lead Industries Association Inc., 295 Madison Ave., New York, NY 10017; telephone (212) 578-4750.

Please submit calendar information to *Hazardous Substances and Public Health*, Agency for Toxic Substances and Disease Registry, 1600 Clifton Rd., NE, Mailstop E33, Atlanta, GA 30333; telephone (404) 639-0736; FTS 236-0736; fax (404) 639-0746.

HYDROCARBON-CONTAMINATED SOILS

Scientific theory, regulatory practices, and economic interests regarding hydrocarbon-contaminated soils are often in conflict. As a result, an enormous amount of resources have been directed toward cleanup efforts. To address this situation, the University of Massachusetts is hosting "Hydrocarbon Contaminated Soils: Analysis, Fate, Environmental and Public Health Effects, Remediation, and Regulation" on September 23-26, 1991, in Amherst, Massachusetts. The goal of the Sixth Annual Conference is to develop regulations that are scientifically sound and economically rational by providing a common ground for regulatory and regulated communities to present information and debate the issues.

For more information, please contact Linda Rosen, Conference Coordinator, University Conference Services CS92-4N, 918 Campus Center, University of Massachusetts, Amherst, MA 01003; telephone (413) 545-2934; fax (413) 545-0050.

NGA CONFERENCE: MAKING INFORMATION WORK

The National Governors' Association's fourth annual conference on integrating data for decisionmaking, "Making Information Work," will be held in Washington, D.C., January 18-23, 1992. The aim of the conference is to explore the role information plays in critical policy decisions regarding education, environment, and health.

The National Governors' Association is a public interest association representing the governors of the 50 states, the commonwealths of the Northern Mariana Islands and Puerto Rico, and the territories of American Samoa, Guam, and the Virgin Islands on issues of public policy and governance. The 1992 NGA conference will provide a forum for participants to share their experiences in applying information technology and explore ideas for leveraging the information resources of state and local government. A multidisciplinary audience of approximately 300 to 400 senior and mid-level officials from federal, state, and local government, business, and academia is expected to attend.

For more information, please contact Kristen Gooch, Making Information Work Conference, National Governors' Association, 444 North Capitol St., Suite 250, Washington, DC 20001; telephone (202) 624-5426.

COMMUNITY INTERVENTION WORKSHOP

In conjunction with the American College of Epidemiology annual meeting November 7-8, 1991, in Atlanta, Georgia, a workshop entitled "Closing the Gap through Community Intervention" will be held November 9-10, 1991. This workshop will be jointly sponsored by the American College of Epidemiology, the Black Caucus of Health Workers of the American Public Health Association, and the Society for Analysis of African-American Public Health Issues.

The first day of the workshop, conducted at the Centers for Disease Control, may be attended for continuing medical education (CME) credit. The program will focus on planning, monitoring, and assessing interventions in communities, particularly communities of color.

The second day of the workshop, conducted at Spelman College, will include an overview of current issues in public health interventions in African-American communities by nationally known speakers.

For more information, please contact Dr. Clark Heath, American Cancer Society, 1599 Clifton Rd., NE, Atlanta, GA 30329; telephone (404) 320-3333.

NORTHWEST CENTER CONTINUING EDUCATION

The Northwest Center for Occupational Health and Safety, located in Seattle, Washington, is one of 14 Educational Resource Centers funded by the National Institute for Occupational Safety and Health (NIOSH). The Center is offering the following continuing education programs in occupational medicine, occupational health nursing, and industrial hygiene and safety.

Supervising Hazardous Waste Operations, September 25, 1991. Training in worker protection at hazardous waste operations. Includes planning for health and safety, practical aspects of site supervision, and regulatory update. Meets federal and state requirements for 8 additional hours of specialized supervisor training. Fee: \$75.

Hazardous Waste Annual Refresher Course, October 3, 1991. This course provides training on worker protection at hazardous waste operations for those who have taken the basic 40-hour course. It is designed to meet federal and state requirements for 8 additional hours of refresher training. Priority will be given to government employees. Fee: \$75.

Ergonomics and the Control of Workplace Hazards, October 16, 1991. Role of ergonomic and other factors in the cause, treatment, and prevention of work-related injuries of the upper extremities and spine. A multidisciplinary approach including medical diagnosis and treatment, ergo-

nomie work-site evaluations, and intervention strategies. Fee: TBA.

Occupational Reproductive Hazards, October 30-31, 1991. Current information on identifying, characterizing, and controlling occupational reproductive and developmental hazards. Will include basic toxicological information and risk management options. Fee: \$275.

Industrial Ventilation: Principles and Applications, November 19-21, 1991. Application of ventilation principles to control airborne health hazards. Emphasis on velocity pressure method and fan system effects recommended in ACGIH Ventilation Manual. Specific design issues addressed in problem-solving sessions. Fee: \$400.

For more information, please contact Janice B. Schwert, Program Manager, Continuing Education, Northwest Center for Occupational Health and Safety, Department of Environmental Health, SC-34, University of Washington, Seattle, WA 98195; telephone (206) 543-1069.

EXPOSURE ANALYSIS CONFERENCE

On November 18-21, 1991, the International Conference on Total Exposure Monitoring, Modeling, and Assessment will be held in Atlanta, Georgia, at the Westin Peachtree Hotel. Sponsors of the event include ATSDR, the Environmental Protection Agency, and the International Agency on Exposure Analysis.

The conference will bring together scientists, engineers, and regulatory specialists interested in human exposure and risk assessment from around the world. Technical sessions will be oriented to addressing the collection and use of human exposure data, especially the use of data for exposure assessments, risk assessments, and regulatory decisionmaking. Workshops on technical topics will be used to educate participants about human exposure monitoring and assessment.

For more information, please contact Sandee Coulberson, ATSDR, 1600 Clifton Rd., NE, Mailstop E28, Atlanta, GA 30333; telephone (404) 639-0700.

UNC TRAINING

The North Carolina Occupational Safety and Health Educational Resource Center in Chapel Hill, North Carolina, is offering the following training opportunities during the fall of 1991.

Occupational Health Nursing: An Introduction to Basic Principles, October 2-4, 1991. This course will provide an

overview of the concepts of occupational health nursing and how to implement an effective program. The content is designed for nurses who are new to the occupational health field.

Quality Control for Industrial Hygiene Laboratories, October 7-11, 1991. This course will present strategies and structures that can be used to evaluate, control, and improve the analytical process. Lectures will be supplemented by problems and group projects. The course is designed for those with QA/QC responsibilities in the laboratory: laboratory analysts, supervisors, managers, and directors of labs accredited by the American Industrial Hygiene Association.

Asbestos Identification by Polarized Light Microscopy, October 21-25, 1991. This 4-1/2-day course is designed to teach the techniques of asbestos identification to technical personnel with little or no microscopical background. Lecture theory will be applied in "hands-on" laboratory sessions to reinforce each major concept. After the study of known samples, at least 10 hours of laboratory time will be available for analyzing unknowns.

Asbestos Respiratory Protection, October 28-30, 1991. The course is designed to provide participants with practical knowledge and hands-on experience to develop, implement, and maintain an effective respirator program. Lectures provide guidance in the selection, use, and maintenance of respirators and workshops provide hands-on experience in fit-testing.

Safety and Health Training for Hazardous Waste Site Personnel (HST 24 - HST 40). These courses, which provide 24 and 40 hours of intensive classroom instruction and hands-on training, fulfill OSHA requirements (29CFR 1910.120) as mandated under the Superfund Amendments and Reauthorization Act of 1986 (SARA). The 24-hour training is offered November 18-20 and consists of lectures, discussions, classroom demonstrations, and small group exercises. The 40-hour training, offered November 18-22, includes the 24-hour course, plus 16 additional hours of lectures, demonstrations, and hands-on training.

For more information, please contact Larry D. Hyde, Director, Continuing Education and Technical Assistance, Occupational Safety and Health Educational Resource Center, University of North Carolina, 109 Conner Dr., Suite 1101, Chapel Hill, NC 27514, (919) 962-2101.

Call for Abstracts

The Canadian Institute of Public Health Inspectors (CIPHI) and the National Environmental Health Association (NEHA) are cohosting an international environmental health confer-

ence, "Networking—Together We Succeed," in Winnipeg, Manitoba, Canada, on July 11-16, 1992. The conference will enable participants who are involved in environmental/public health to build contacts, exchange information, and discover new and practical solutions to environmental health issues.

Simultaneous tracks will be presented, including the following: General Environmental Health, Air/Land/Water, Food Protection, Environmental Health Management, Hazardous and Toxic Substances, International Environmental Health, Institutional Environmental Health, Injury Prevention and Occupational Health, and On-Site Waste Water Management. Presentations are being solicited through a

PREVENTION 92

March 21-24, 1992
The Stouffer Harborplace Hotel
Baltimore, Maryland

LINKING SCIENCE, POLICY AND PRACTICE

Explore the linkages between prevention science, policy and practice at the ninth annual national preventive medicine meeting in Baltimore, Maryland. The overall themes of health issues in the workplace, competing agendas in prevention education, developments in clinical preventive medicine, and progress in public health will guide the meeting program. National experts will participate in sessions on such topics as cardiovascular risk factors, clinical practice guidelines, the behavioral science bases of prevention, health benefit plans, worksite AIDS prevention, the strategic plan to eliminate tuberculosis, advances in immunizations, infant mortality, childhood lead poisoning, injury and violence, infectious disease updates, and many other timely and important issues.

Attend computer presentations, skill-building workshops and special interest group meetings. Meet colleagues who work in academic institutions, industry, and public and private agencies, all of whom are concerned with the broad range of disease prevention and health promotion issues and activities.

Take part in this exciting program. Earn CME credit. Contact the Meeting Manager at (202) 789-0006 for PREVENTION 92 registration information.

PREVENTION 92
1015 15th Street, NW, Suite 403
Washington, DC 20005

ATSDR

call for abstracts (100 words maximum). **The deadline for submission is October 31, 1991.**

For more information, please contact NEHA, 720 South Colorado Blvd., South Tower, Suite 970, Denver, CO 80222; telephone (303) 756-9090; fax (303) 691-9490.

Publications

EPA GROUNDWATER RESEARCH DIRECTORY

The EPA Office of Technology Transfer and Regulatory Support (OTTRS) in the Office of Research and Development (ORD) has published the third edition of the Groundwater Technical Assistance Directory (EPA/600-9-91/006, March 1991). The directory is intended to foster communication among scientists and engineers throughout ORD and among EPA, state, and local personnel involved in the protection and management of groundwater resources. In addition to listing ORD researchers by location and subject matter, the directory provides organizational descriptions of the groundwater research programs for each ORD office.

The scientists and engineers listed in this directory conduct or manage research, development, demonstration, and tech-

nical assistance projects to support the regulatory programs of EPA's Office of Water, Office of Solid Waste and Emergency Response, and Office of Pesticides and Toxic Substances. Copies of this document are available from the Center for Environmental Research Information (CERI), Publication Order Office. Please call (513) 569-7391; FTS 684-7562.

ATSDR's 24-hour Tox Information Line (404) 639-6000

More than 100 *Toxicological Profiles* are available from ATSDR's Division of Toxicology. These documents give detailed information on many of the chemicals and substances of concern at hazardous waste sites. Each profile contains information on how a person might be exposed to the substance, possible health effects of exposure, and other scientific information.

To provide further information on the *Profiles*, including ordering information, mailing list options and qualifications or specialized technical information, the Division of Toxicology has developed a 24-hour information service. A touch-tone phone is required to use the system. The messages and fax information are updated as needed.

DEPARTMENT OF HEALTH & HUMAN SERVICES

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